

REMARKS

Applicant appreciates the Examiner's review of the present application. Claims 1 and 6-7 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,151,404 to Pieper ("the Pieper patent" or "Pieper"), and Claims 8-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Pieper patent in view of U.S. Patent No. 4,984,157 to Cline et al. ("the Cline patent" or "Cline"). Claims 2-5 have been objected to as being dependent upon rejected base Claim 1. Applicant has not amended Claims 2-5. Applicant has amended Claims 1, 8, and 14 in order to put these claims and dependent claims therefrom in condition for allowance by including additional limitations not found in the prior art or obvious thereby. Applicant has added Claims 18-21 in order to rewrite original Claims 2-5 in independent form including all of the limitations of original base Claim 1. In response to the Final Office Action and as explained in more detail below, Applicant respectfully submits that the Pieper patent does not teach or suggest the claimed invention as amended and further that the claimed invention as amended is not obvious in view of the Pieper and Cline patents. In light of the amendments to rejected claims and the remarks presented below, the Applicant respectfully requests reconsideration and allowance of all now-pending claims of the present invention.

With respect to Claim 1, the applicant has amended Claim 1 to expressly state that the operator defined plane is "pre-acquisition" and "in addition to said one or more plane images acquired from the imaging device." Although the imaging device has acquired one or more plane images of the subject, the operator input defines a pre-acquisition operator defined plane, whereby the act of defining the operator defined plane may not occur pre-acquisition of any image, the operator defined plane has not been acquired, or is "pre-acquisition." These amendments are intended to further distinguish the invention from the prior art. For example, Pieper describes selecting a particular 2-D slice image that is a post-acquisition scanned image that is already in storage. Similarly, the applicant has amended Claim 1 to expressly state that the scan model is "pre-acquisition" to further differentiate the invention from the prior art. For

example, Pieper describes that the selected slice image inserted into the 3-D computer model is a post-acquisition scanned image that is already in storage. These amendments to Claim 1 are intended to distinguish pre-acquisition features and capabilities of the present invention from post-acquisition features and capabilities of the prior art.

Further, with respect to Claims 1 and 7, the applicant contends that Pieper does not and cannot teach that an operator can define or alter an orientation of the operator defined plane in relation to one or more subject landmarks defined by the plane images acquired from the imaging device. Because the selected slice image of Piper is a post-acquisition image, the plane of the selected slice image will be fixed with relation to the 3-D computer model. Thus, where Pieper allows the physician as to the particular angle of the view desired, Pieper is only allowing the physician to view the 3-D model and incorporated selected slice image, together, at a particular angle view, not allowing the physician to define or alter an operator defined plane in relation to the 3-D model.

With respect to Claims 8 and 14, the applicant has amended Claims 8 and 14 to expressly state that the operator defined plane or image is “pre-acquisition” and, respectively, “in addition to the image planes acquired from the imaging device” or “in addition to the localizer images acquired from the imaging device.” These amendments are intended to distinguish pre-acquisition features and capabilities of the present invention from post-acquisition features and capabilities of the prior art.

Further with respect to Claims 8 and 14, and respective dependent Claims 9-13 and 15-17, Applicant asserts that the Cline patent does not teach that *additional* data values are obtained by non-intrusive body scanning techniques. Rather, at column 10, lines 52-58, the Cline patent teaches that “the three-dimensional array of physical data values is obtained, either by searching a stored array of such values, or by generating values by non-intrusive body scanning techniques.” The three-dimensional array of physical data values that are obtained are the initial scan images stored in the 3-D data store that are used to generate the 3-D model and to generate the selected cut plane by interpolation of the initial scan plane images. The zoom affect

described in the Cline patent at column 10, lines 39-51 does not define scan geometry for the imaging device to acquire additional image data. While the zoom affect does define geometry, the Cline patent does not teach that such geometry is scan geometry, and nothing in the Cline patent suggests the concept of an imaging device acquiring *additional* scan planes based upon the zoom geometry. No pre-acquisition operator defined scan plane is defined in the Cline patent that may subsequently be acquired by an imaging device according to operator defined scan geometry. Accordingly, the Applicant asserts that defining scan geometry determined by the operator with respect to a 3-D model for the imaging device to acquire additional image data was not known in the art at the time the present application was filed. Rather, as evidenced by the prior art references cited by the Examiner, including the Pieper and Cline patents, the prior art functionality and capabilities were limited to the solution of generating additional image data through methods such as interpolation and incorporation of stored scan images.

In view of the remarks presented above and amendments to the claims, it is respectfully submitted that the present claims are in condition for allowance. It is therefore respectfully requested that a Notice of Allowance or Advisory Action be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present invention.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

In re: Marijn E. Brummer
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Respectfully submitted,

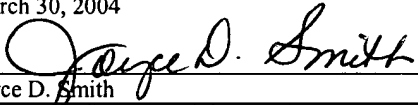


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